Document No.:   251-UM-003

Document Type: User Manual

Security Level: Open

Starfinder Lite 201 Utility Quick Start Manual

Version 2.4

Dec. 12, 2013

LAIPAC TECH

Release History

Revision	Date	Content
1.0	2011/09/14	It is initial release
1.1	2012/03/13	Add the sections below Section 5 Import and Export Configuration File Appendix: Activation and Inactivation of Unit
2.0	2012/05/18	Introduction to new utility LocationNowSuite
2.1	2012/06/06	Add the following sections Section 1.3 Setup summary Section 6.5 Export a configuration file Section 6.6 Import a configuration file Revise section 8.1
2.2	2012/08/20	Introduction to new utility LocationNow Suite (Beta Version)
2.3	2012/10/02	Introduction to new utility LoctionNow Suite
2.4	2013/12/12	1. Re-organize and write all sections to match the new utility of LoctionNow Suite and new LocationNow platform version 3 **2. *Add firmware updating process to this manual** 3. Add working status checking procedure 4. Using SF-Lite rather SF-Lite 201 in this document

Note:
*Because of adding firmware updating process to this manual, another related document, "**SF-Lite 201Utility & Firmware Update Manual**" will be obsolete or no long be maintained later.

Content

1. Introduction

This manual guides user of Starfinder Lite(SF-Lite) to configure his/her unit by using new utility "**LocationNow Suite"** quickly to access **LocationNow.com, which** is a Location Based vehicle tracking service platform from **Laipac Technology Inc.**

1.1 Setup Summary

This section outlines what must be accomplished in order to operate the device. Detailed descriptions of these steps will be listed in the following sections.

1. Install the latest version of utility software

2. Complete pre-installation of USB driver on computer (for PC with Windows XP)

3. Power on Starfinder Lite with DC power supply (12V)

4. Connect the Starfinder Lite to the computer and reset the unit with reset button

5. Install USB driver on computer

6. Run utility and reset unit with reset button

7. If unit is not activated (locked), activate (unlock) it

8. If the existing firmware does not meet the request of utility, update firmware

9. Configure the unit and save the settings to unit

10. Disconnect Starfinder Lite with computer

11. Insert the valid SIM card into the SIM Card Tray on the front of the unit

12. Connect the GPS and GSM antennas

13. Press reset button to valid the configuration and have the device start workin

1.2 Introduction to LocationNowSuite utility

"**LocationNow Suite**" is a stand-alone utility software package for all of the major GPS tracking products from Laipac Technology Inc.

User can use the web link below to download its latest version, such as "**LocationNow Suite 20131009**".

http://www.laipac.com/sflite201update.htm

Mainly, "**LocationNow Suite**" is able to provide the two functions below

● Configuration
● Firmware Update

The computer, used for installing this utility, should be with
● Microsoft Windows 7 O.S. (recommended)
● IE8/9/10 browser only, which being supported by Adobe Flash Player V9.0 or up

For Adobe Flash Player V9.0 or up, user has to download it by using Windows IE and the link below rather than downloading it through any other browser.
http://get.adobe.com/flashplayer

1.3 Installation of utility

This software package is a compressed file with suffix ".7z" or ".zip", such as, "**LocationNowSuite20131009.7z**"

Decompress it to get the executable program "**LocationNowSuite20131009.exe**"

Run "**LocationNowSuite20131009.exe**".

Follow "Setup Wizard" instruction, click "Next", step by step, user can complete the installation of this utility software.

When installation process is done, user is able to have icon below shown on his computer's desktop
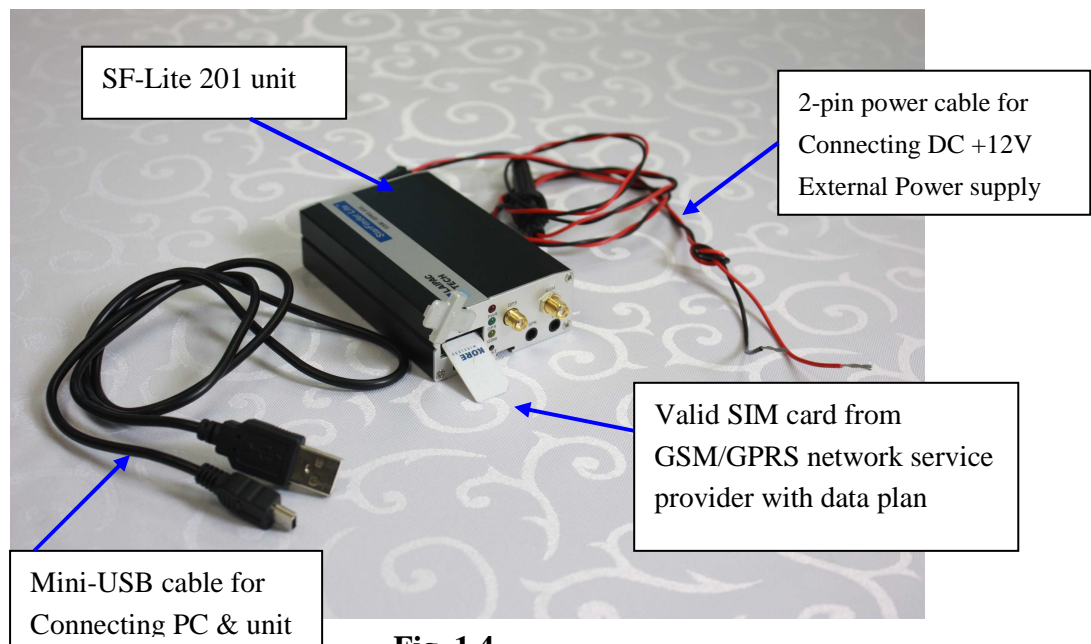
1.4 Set-up for configuration of device

SF-Lite 201 unit

2-pin power cable for Connecting DC +12V External Power supply

Valid SIM card from GSM/GPRS network service provider with data plan

Mini-USB cable for Connecting PC & unit

Fig. 1.4

![Laipac Tech logo]

Laipac Technology Inc.

2. Installation of USB driver

2.1 Installing USB driver on Windows XP

2.1.1 Pre-installation

Go to Start →All Program→ Laipac Platform AIO → Install Driver

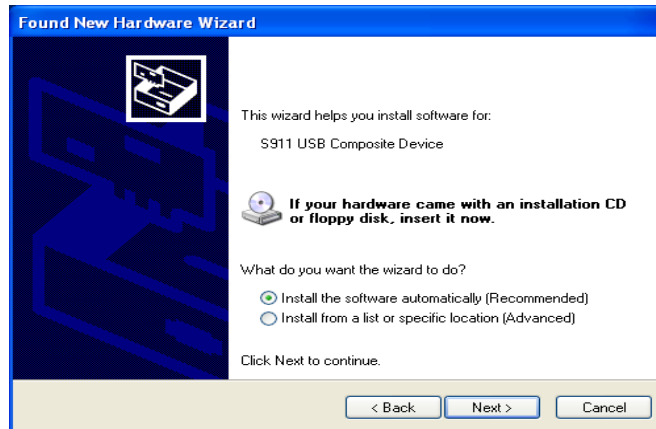Click "Install", then close the installation menu to complete pre-installation

2.1.2 Installation of USB driver

(1) Power on the unit with external DC 12V power supply
(2) Connect SF-Lite unit to PC by using mini USB cable
(3) Reset unit by pressing its "reset" button.

If you get a "Found New Hardware" message, click the "*Yes, this time only*" then click "*Next*". This is for the configuration of the USB interface.

If the Wizard appears again select "*Install the software automatically*" then click "*Next*". This is for the configuration of the virtual COM port.

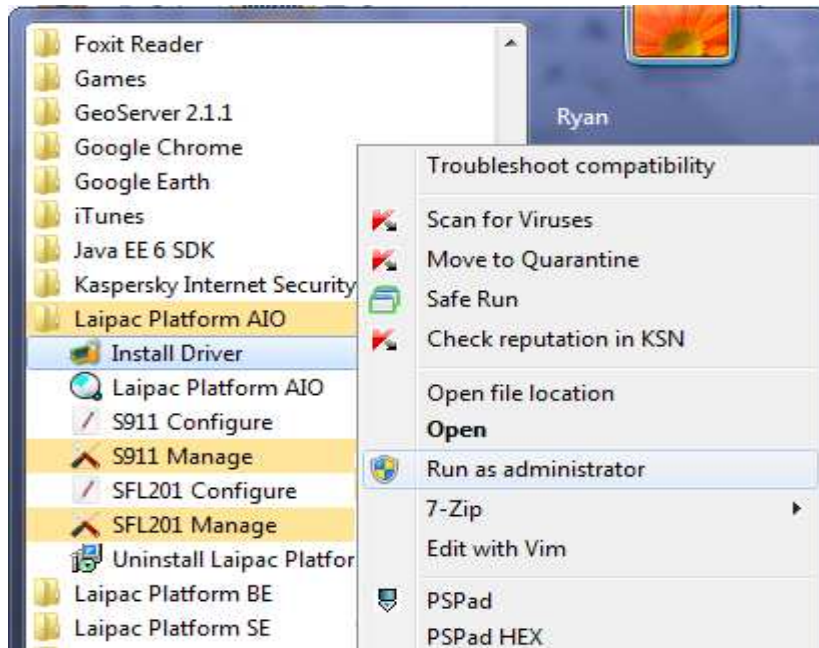

The device will be detected and will come up with another Windows digital signing warning message just click "*Continue Anyway*" then click "*Finish*".

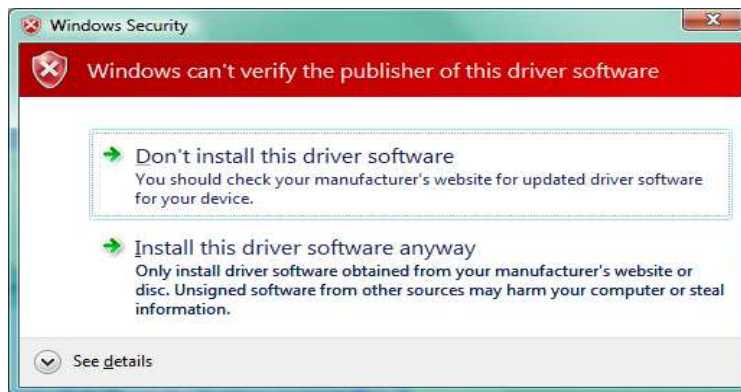**2.2 Installing USB driver on Windows 7 (method 1 and recommended)**
The procedure below is for user whose computer is running **Windows 7**. It could also be used as reference for USB driver installation on **Windows Vista**.
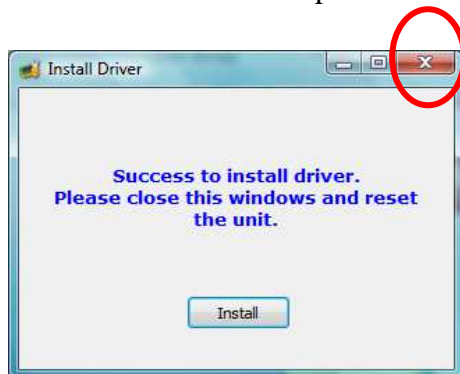
2.2.1 Pre-installation
Go to Start →All Program→ Laipac Platform → Install Driver, then, right click to get menu below → select **"Run as administrator"**
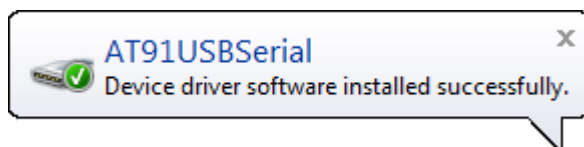

Click "**Install**"

Select "**Install this driver software anyway**", after see the pop-up message below, click "X" button to complete.

2.2.2 Installation of USB driver
(1) Power on the unit with **external DC 12V power supply**
(2) Connect SF-Lite unit to PC by using mini USB cable
(3) Reset unit by pressing its "reset" button.

If PC screen's bottom-right corner displays hint bubble below, it means this USB driver has been installed successfully.

Note:
If user is not able to pop-up message above, he needs disconnect his device with computer and reset his computer. Then re-do the operation requested by 2.2.2

2.3 Installing USB driver on Windows 7/8 (method 2)

1. Connect your unit to PC through the mini USB cable.

2. Reset unit by pressing "**Rese**t" buttons for 3 seconds

3. Waiting for a while, on bottom right corner of PC's screen, if user can see the prompt information below

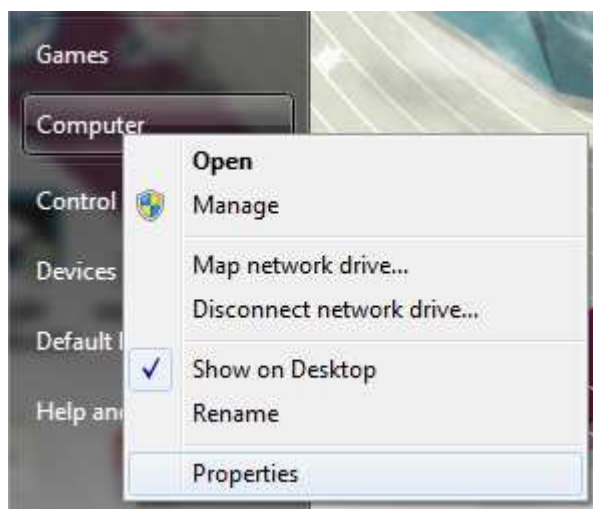   "**Installing device driver successfully**" and "**Personal Tracer (COMx)** …"

   It means the requested USB driver has been installed successfully. LocationNow Suite utility software will be able to communicate with device through this virtual COM port – COMx, depending on user's computer, which could be COM3, 4, …
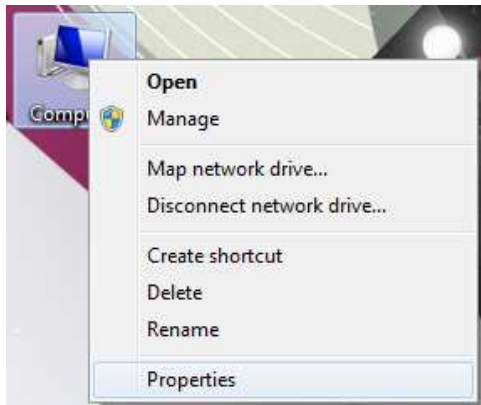
   Note:
   Sometimes, after going through this installation procedure above, user needs disconnect his device with computer and reset his computer to fully complete the installation of this USB driver.

2.4. Verify the installation of USB driver

a. Select and click icon of Start [image] , then, select "Computer" and right click the mouse to have the pop-up list below, or
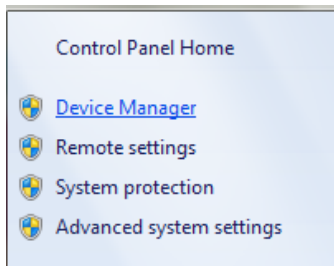
b. Select the icon of Computer, then, right click the mouse to have the pop-up list below
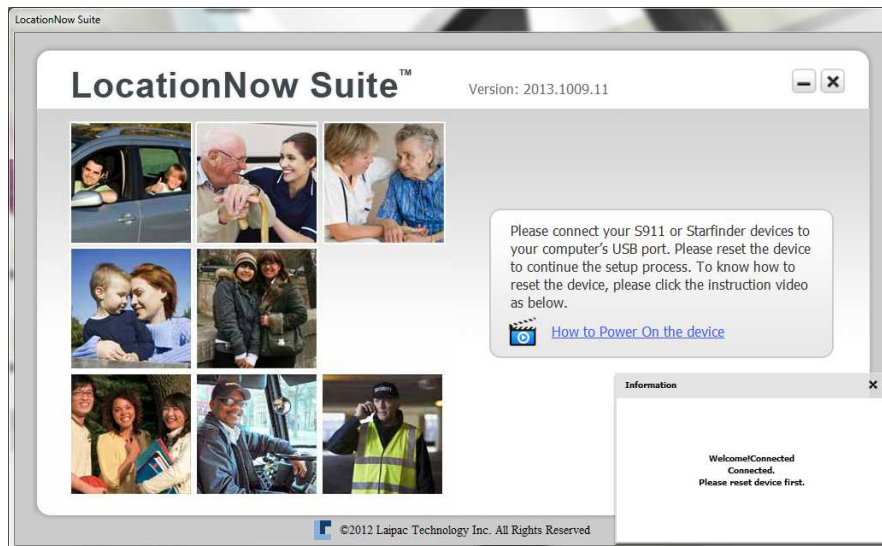

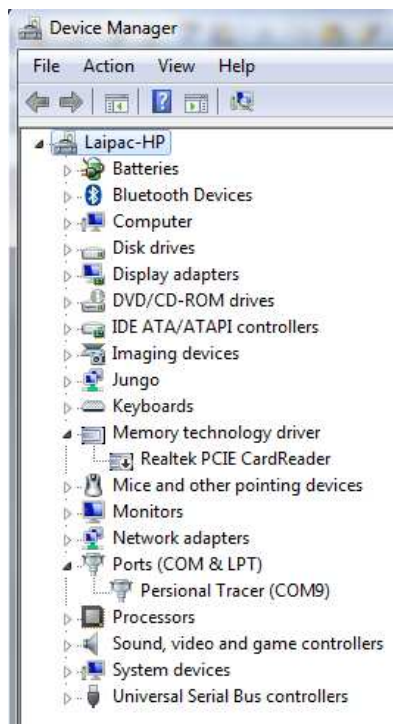c. Click "**Properties**" to have the "**Control Panel Home**"

d. From the "**Control Panel Home**", select and click "**Device Manager**" to bring out the interface of "**Device Manager**"
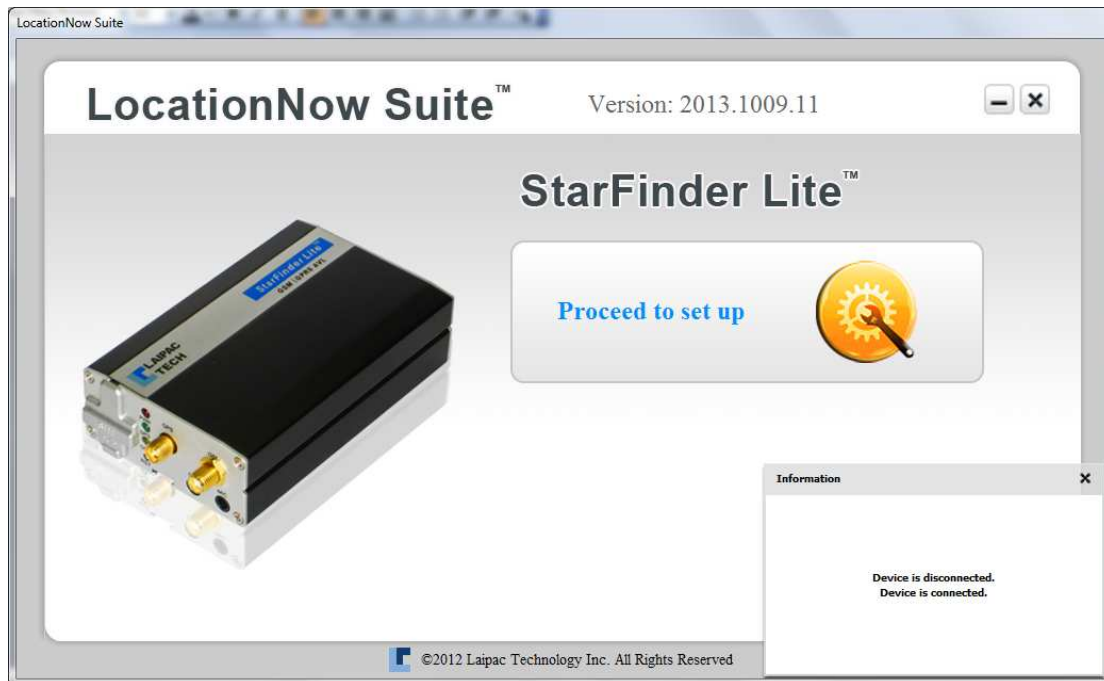
e. Power up the device with external DC +12V power supply and connect the device with
   computer through USB cable

f. Click the icon of LocationNowSuite below to run this utility,

g. Press "**Reset**" button on device, if user observes the changing shown on Device
   Management interface, he will found "Personal Tracer (COM9)" coming out

h. Also, if he takes a look at the cover menu of Location Suite utility, he should see the pop-up window with information "Device is connected"

If user is able to see the information listed by step g and h, it means that his computer has installed the SF-Lite's USB driver successfully

3. How to start configuration of your device

3.1 Enter into LocationNow Suite

There are 2 ways below to enter into LocationNowSuite utility's platform menu, see Fig. 3.1

a. Double click icon "LocationNow Suite" on PC's desktop, or

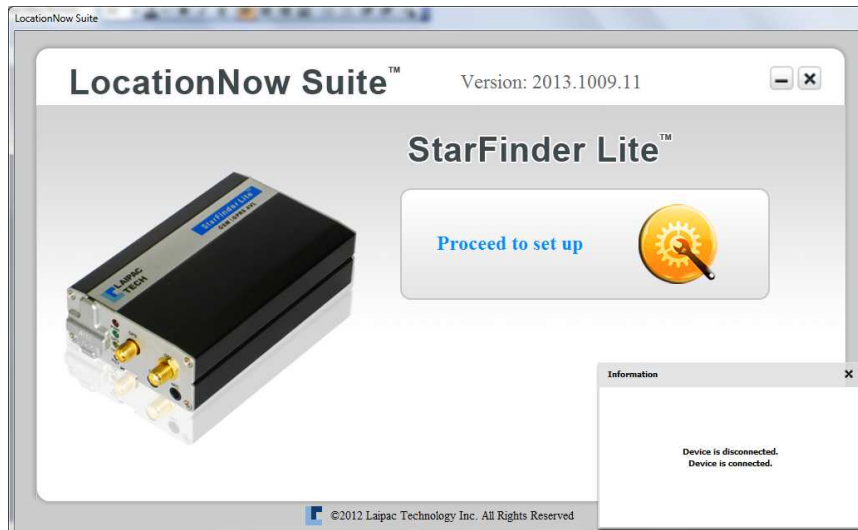b. Go to Windows' Start → All Programs → LocationNow Suite → LocationNow Suite

Fig. 3.1

3.2 Action on SF-Lite

(1) Insert SIM card, see Fig. 4.2

(2) Power on the unit with external DC 12V power supply

(3) Connect SF-lite unit to PC by using mini USB cable

(4) Reset unit by pressing its "Reset" button.

Fig. 3.2

3.3 Activate the device

Before the device left factory, it has been set into its **Shipping Mode** in order to block its RF signal sending or receiving activity on during its shipment.

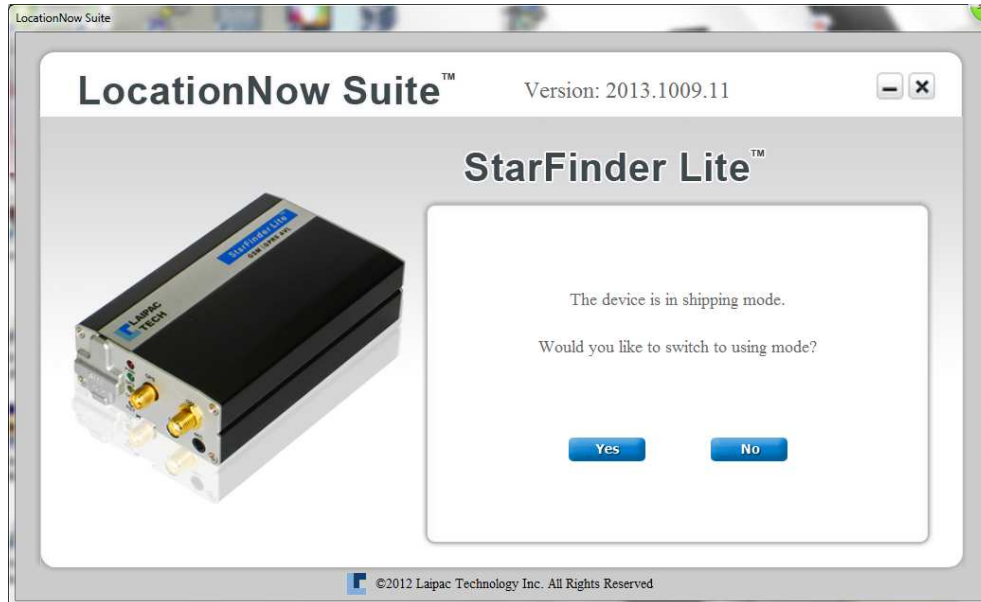After reset, if device is under its Shipping Mode, user is able to see Fig. 3.3-1

Fig. 3.3-1

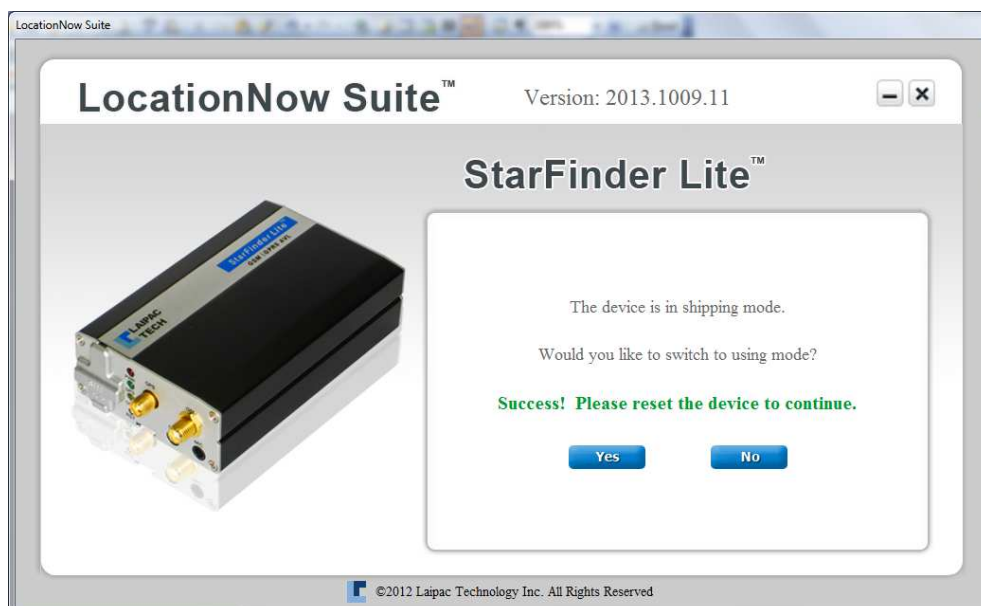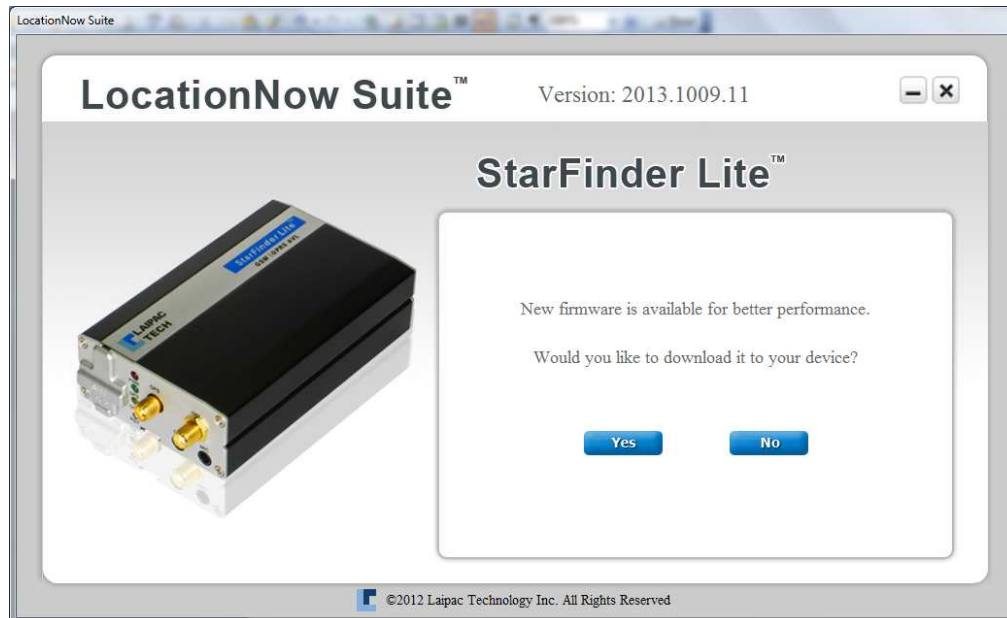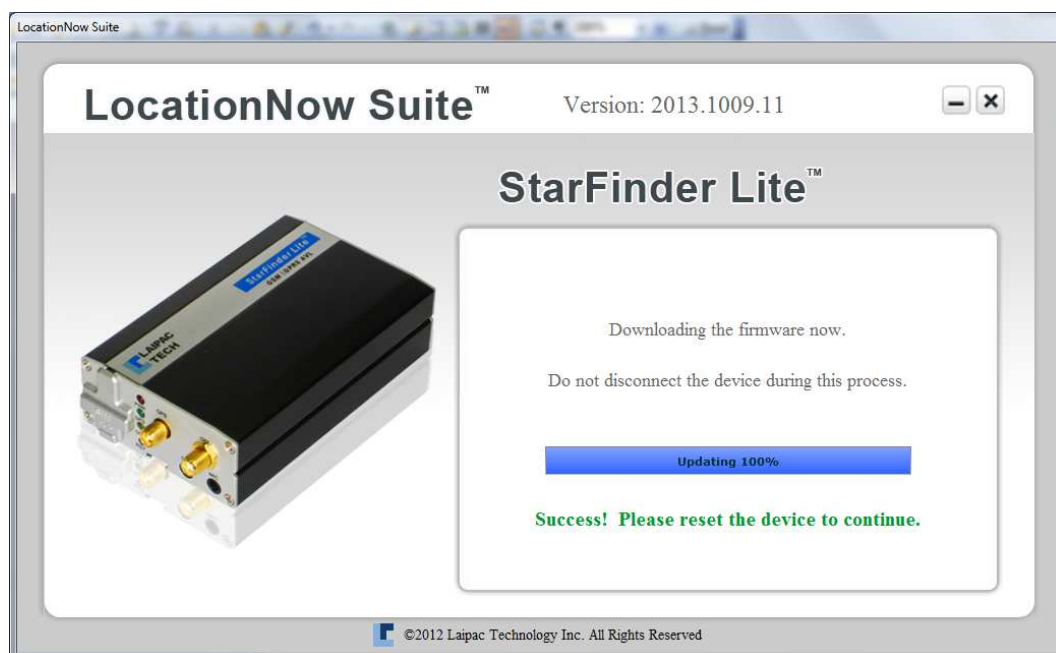Click "Yes" button, utility will switch device to its **Using Mode** and show Fig.3.3-2

Fig. 3.3-2

3.4 Update firmware to meet the request of utility

When user configures his device by using LocationNowSuite utility, the application firmware version on his device must meet the request of the utility. If not matching, after reset, utility will remind user to update his device firmware, as shown below.

Click "Yes" button to start updating the firmware. When updating process is done, user will seen Fig. below. He can reset device to start the configuration of device now.

3.5 If unit has been activated and with the requested firmware

After reset, under conditions below, user is able to see Fig. 3.5-1

a. The connection between unit and utility is OK

b. Unit has the firmware version requested by this utility. Such as, for utility package LocationNowSuite20131009, it requests firmware version for SF-Lite is V2.08

c. Unit has been activated

Fig. 3.5-1

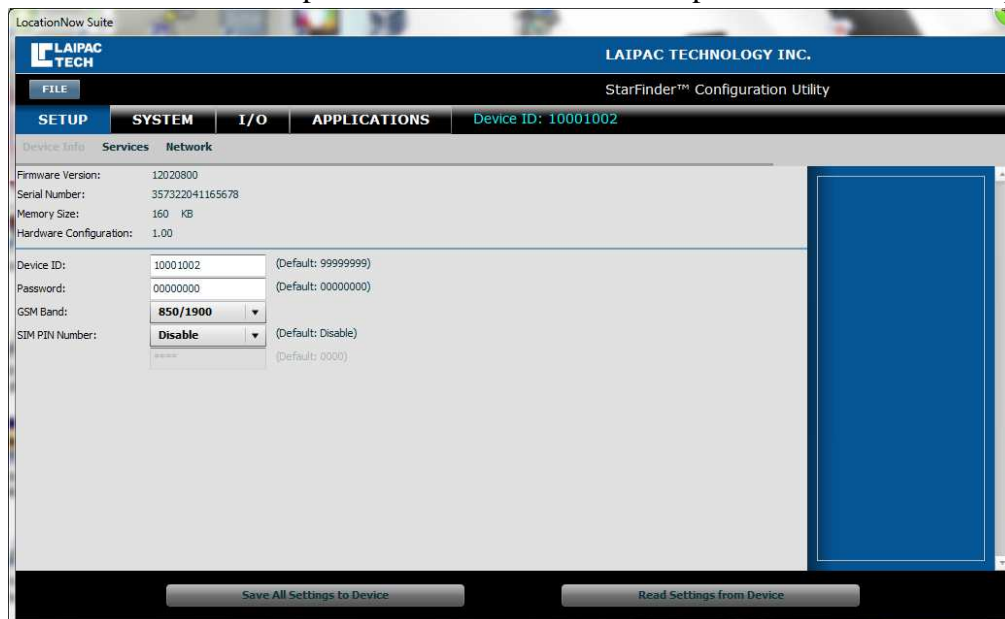Click "Proceed to set up" button to enter into Main Operation Menu- SETUP page

Fig. 3.5-2

4. Basic operation of utility

Fig. 4

4.1 Read the device's existing configuration

a. Click "Read Setting from Device" button.
b. If this operation is successful, Operator should see "Read current setting … success". See Fig. 4.1 below

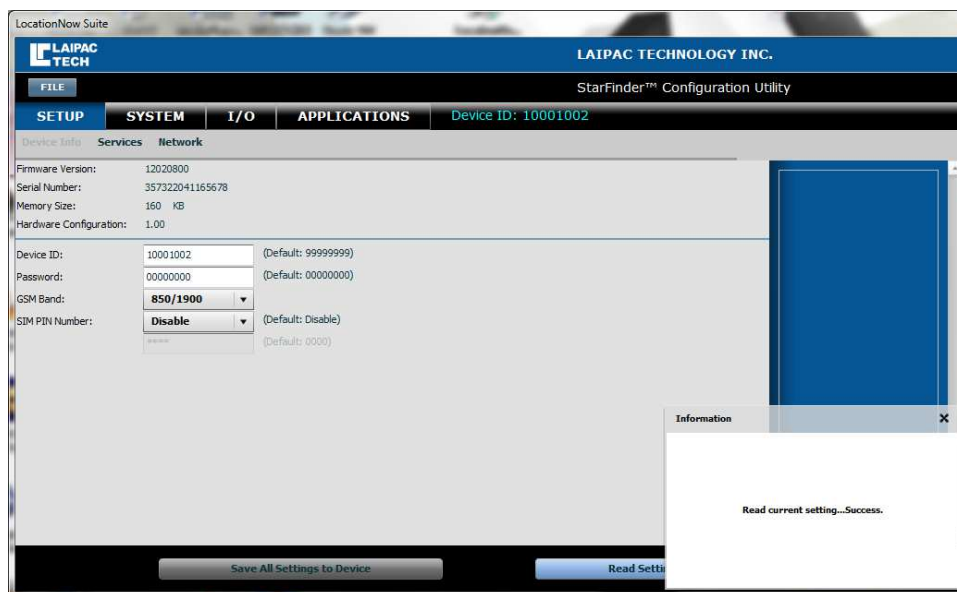Note: If the unit never do configuration before, this operation will be fail.

Fig. 4.1

4.2 Save the setting to unit and valid it

Once user completes the configuration, he should click "Save All Setting to Device" button to save the edited setting into unit. If this saving process is OK, Operator should see the pop up window with prompt "Writing new setting … Success", see Fig. 4.2

To valid this configuration, user needs

● Disconnect computer with unit
● Insert a valid SIM card into unit and power up the unit with DC power supply (12V)
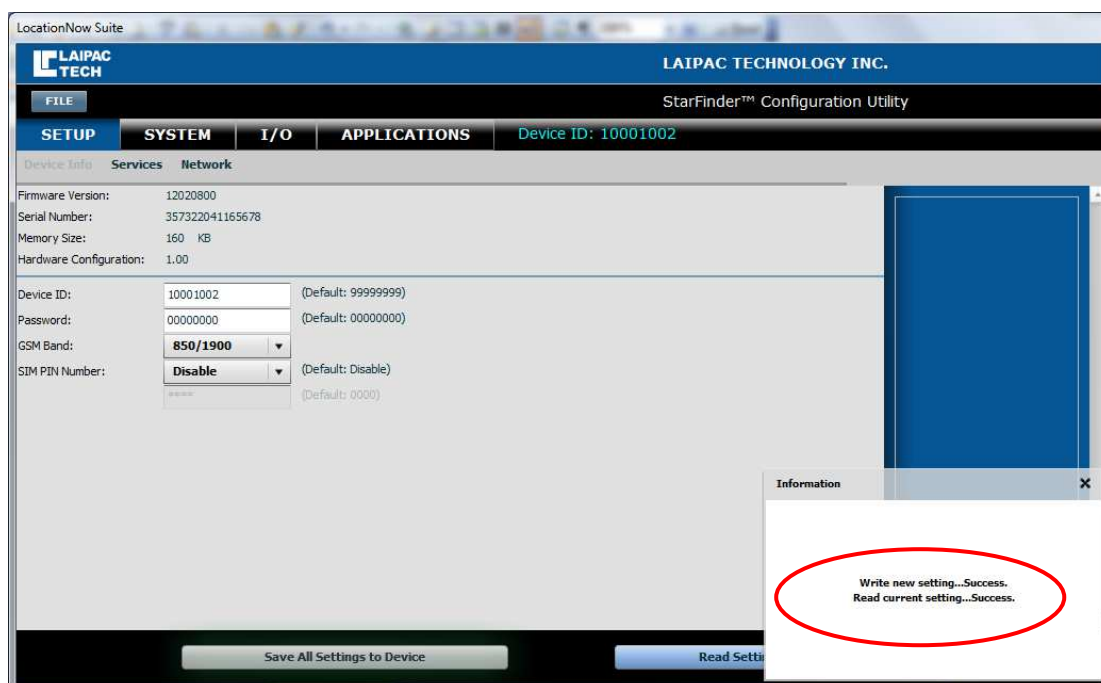● Reset unit with reset button to start running application

Fig. 4.2

4.3 Import setting from a configuration file

User can acquire a set of configuration from a saved configuration file on his computer
a.   Click "FILE" → "Import file", see Fig. 4.3.a and 4.3.b
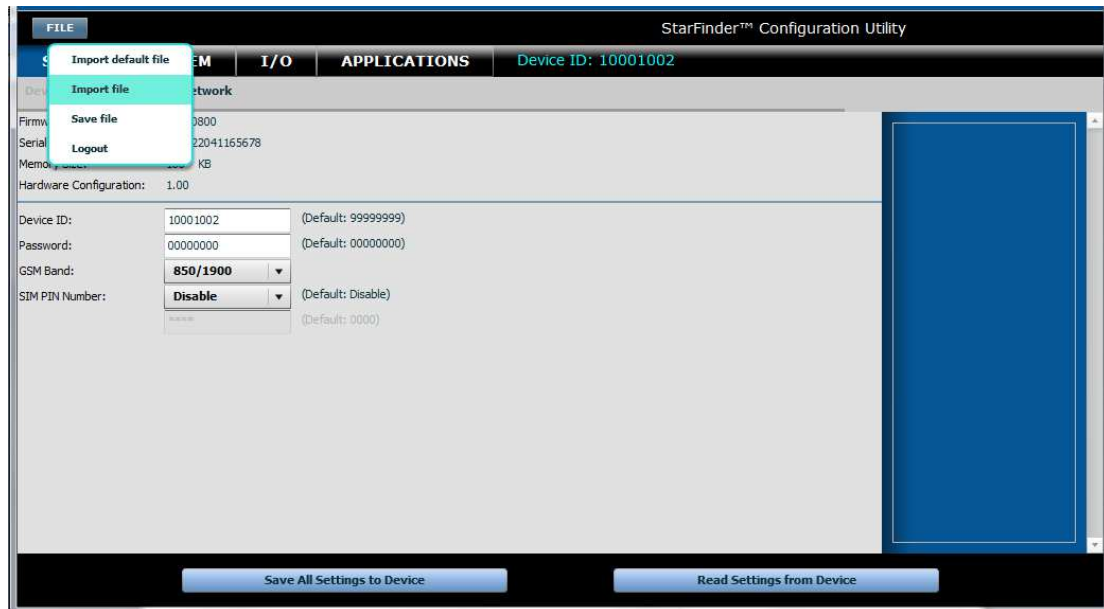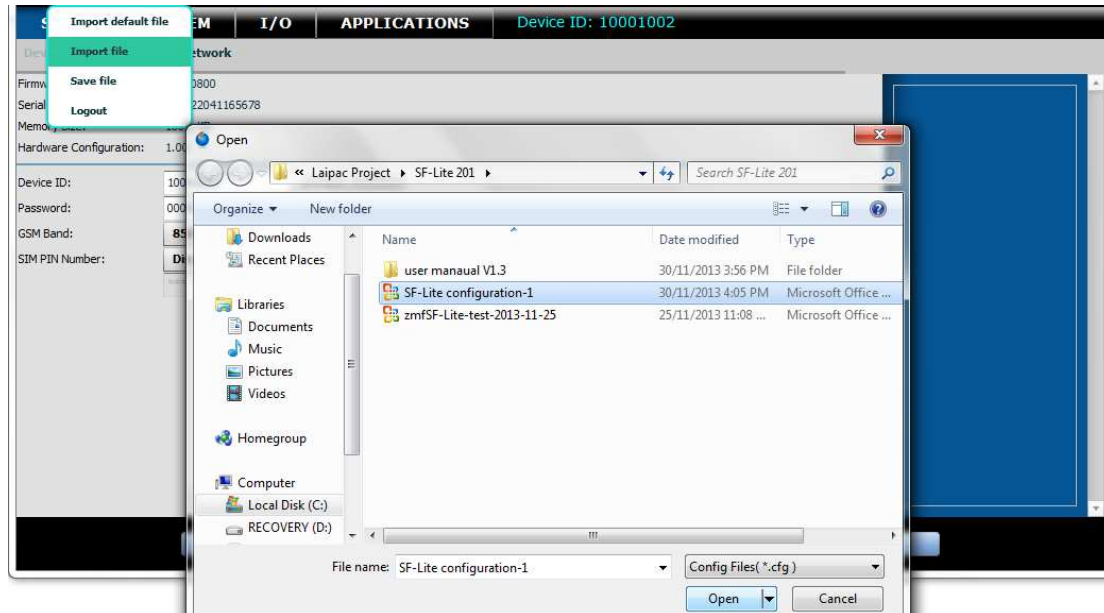

Fig. 4.3.a

Fig. 4.3.b

b. From the existing files to select a prefer one, such as, "**SF-Lite configurati-1"**, then
   click "Open"

If reading file is successful, user can see a pop-up window with prompt "Success".

4.4 Save the current configuration into a configuration file

User can save the current edited configuration into to a configuration file follow the steps below
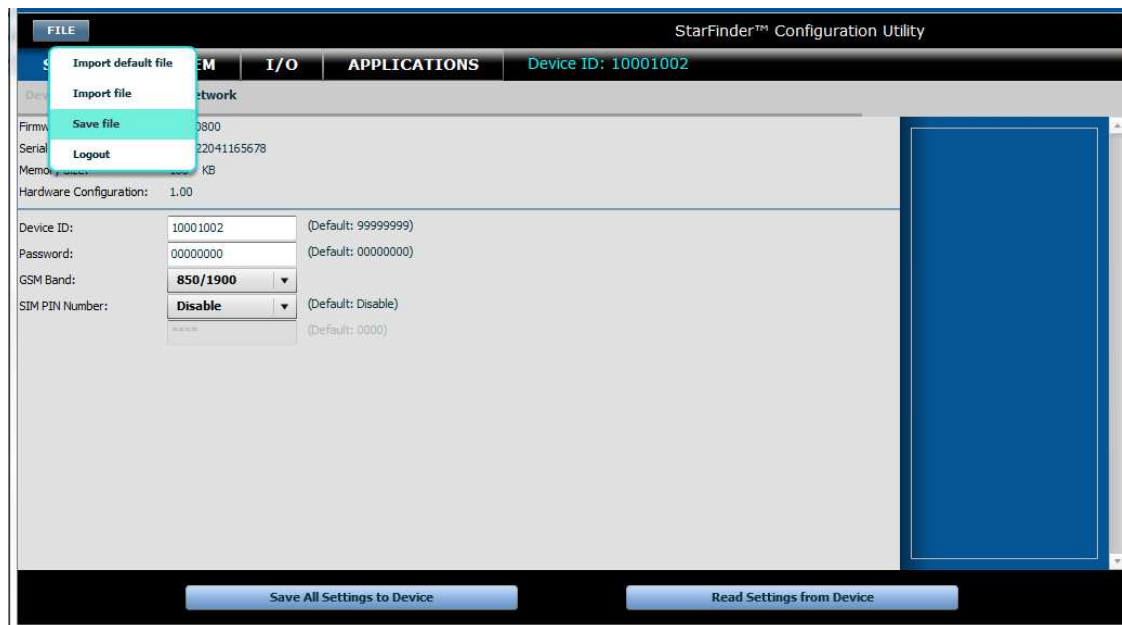
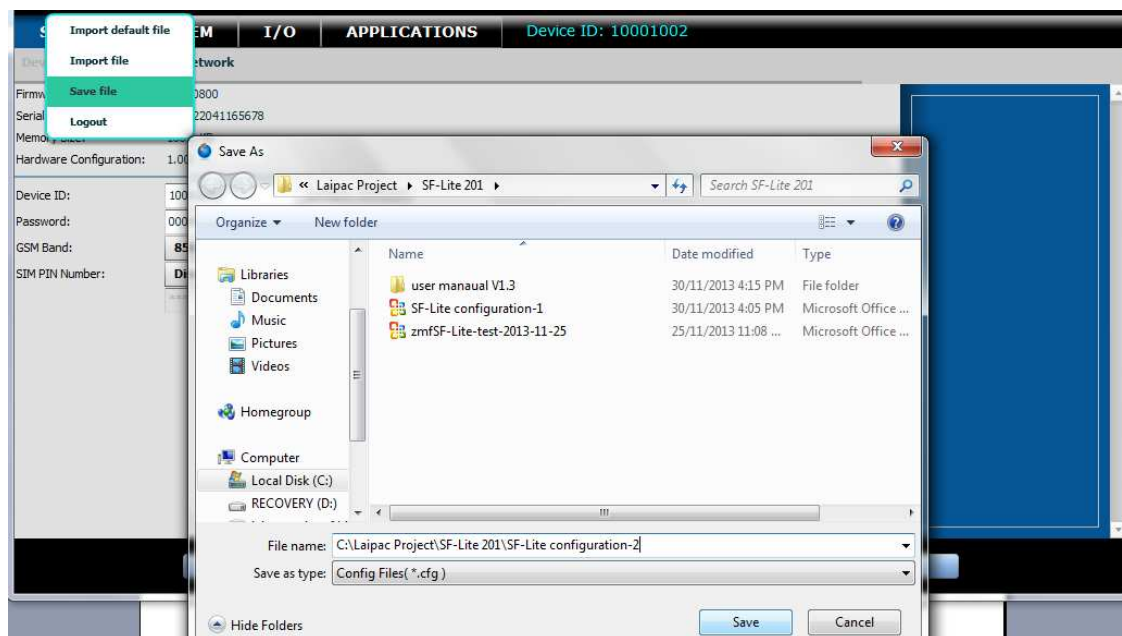a. Click "FILE" → "Save", see Fig. 4.4.a and Fig. 4.4.b

Fig. 4.4.a

Fig. 4.4.b

User should type in the name of this new configuration file, such as, "**configuration-2**", then, click "Save"

5. Basic Configuration

Refer to SF-Lite User Manual V1.3, section 3.4.2, "**Basic Configuration**"

6. Advanced Configuration

Refer to SF-Lite User Manual V1.3, section 4, "**Advanced Configuration and Features**"

7. Hardware configuration and working status checking
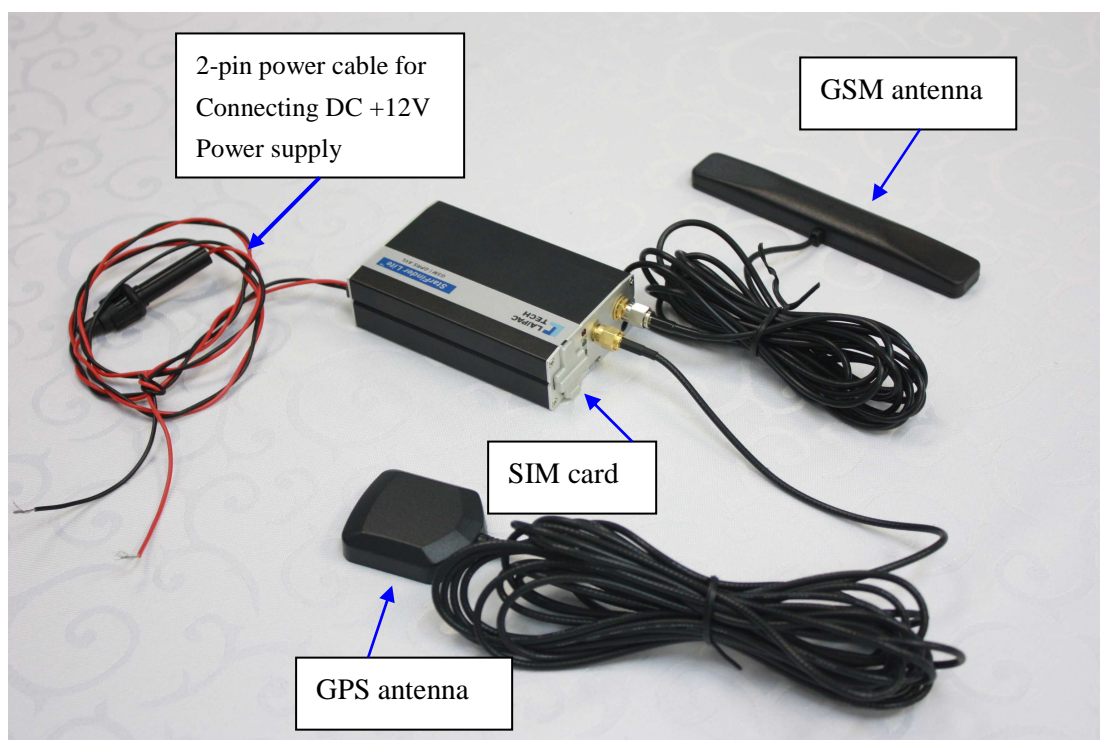
7.1 Hardware configuration

Fig. 7

Fig. 8 shows the basic hardware configuration used for SF-Lite unit to access its remote Location Based Service platform, such as, Laipac's LocationNow

Note:
As prerequisite, the signal quality of both GPS and GSM should be at the acceptable level when your device accesses Location Based Service platform, such as, LocationNow.

8. Check working status of device

Fig. 8   Front panel of Starfinder Lite

There are 3 LED indicators on the front panel of SF-Lite. They are used to indicate the working status of power supply, GPS, and GSM. Table 8 describes the relation between those LED and device's working status.

LED	Off	Fast Flashing	Slow Flashing	Keeping On
Power (Red)	External power not available			External power available
GPS (Green)		Under process of locating position		Position fixed
GSM (Yellow)		Searching for GSM network	GSM network connected	

Table 8

Before user access the LBS server, such as, Locationnow.com, he should ensure his device is connected to the GSM/GPRS network, that is, the yellow GSM LED is flashing slowly. Light-off time between 2 flashing is about 3 second.

If yellow GSM LED keep flashing fast, user should check
• The connection of GSM antenna and SIM card
• If his SIM card has been activated

Also, if user wants to find the real time position on the Map of LBS Server, the Green GPS LED must be keep on. It is means that the position of this device has been located by its internal GPS receiver.

If yellow GSM LED keep flashing fast, user should check
• The connection of GPS antenna
• The installation position of GPS antenna to ensure it has a good signal receiving view

9 Find your device on LocationNow

9.1 Logo in LocationNow

SF-Lite's user could experience the location based service, by using Microsoft IE 9.0 or up to access LocationNow service platform. Its link is below
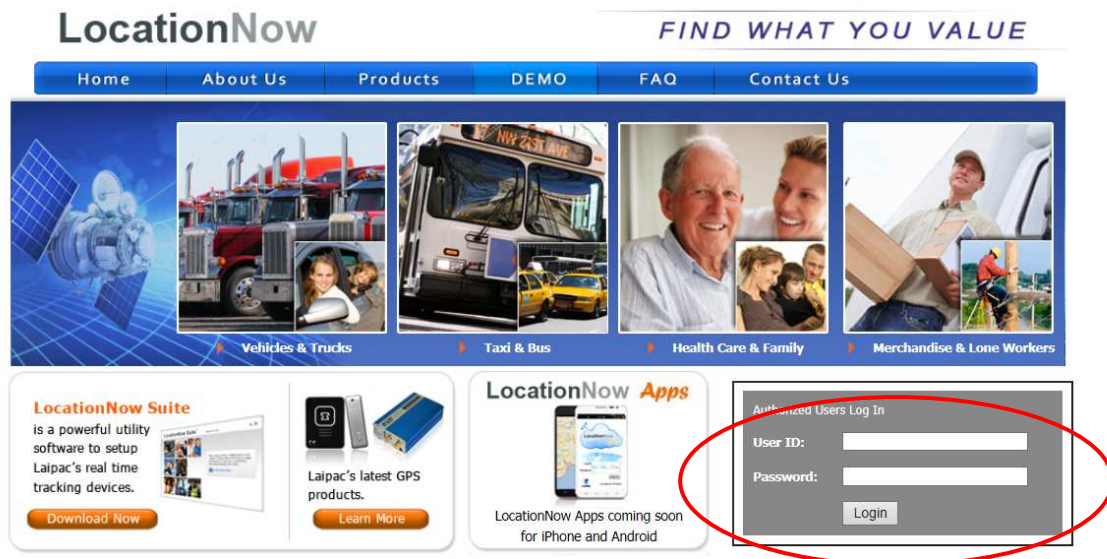http://www.locationnow.com/locationnow/

Fig. 9.1 a Login interface of LocationNow.com

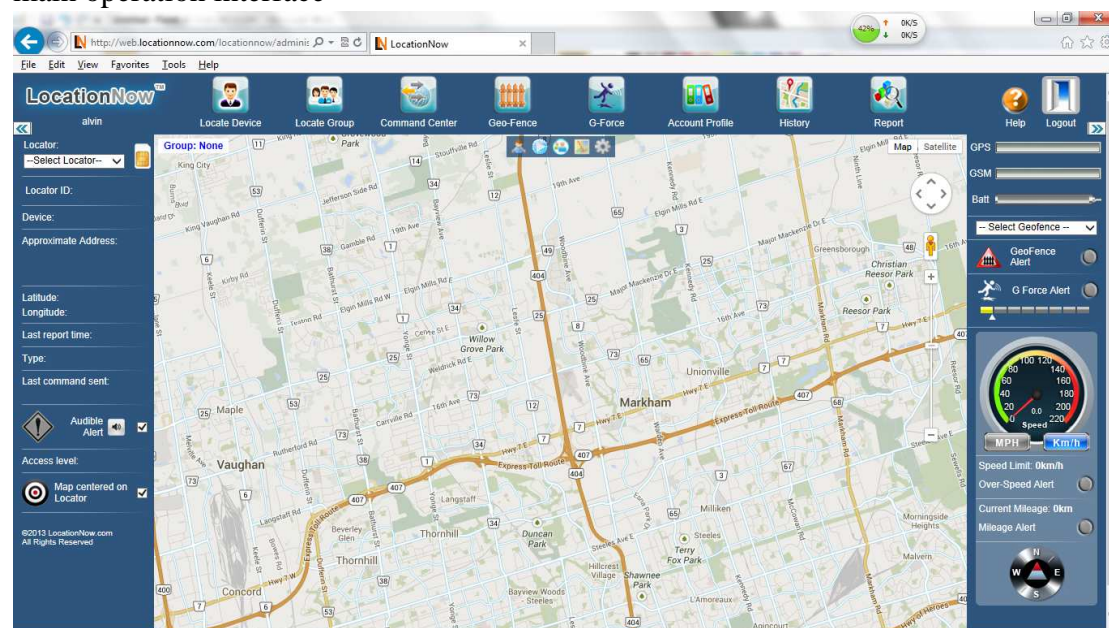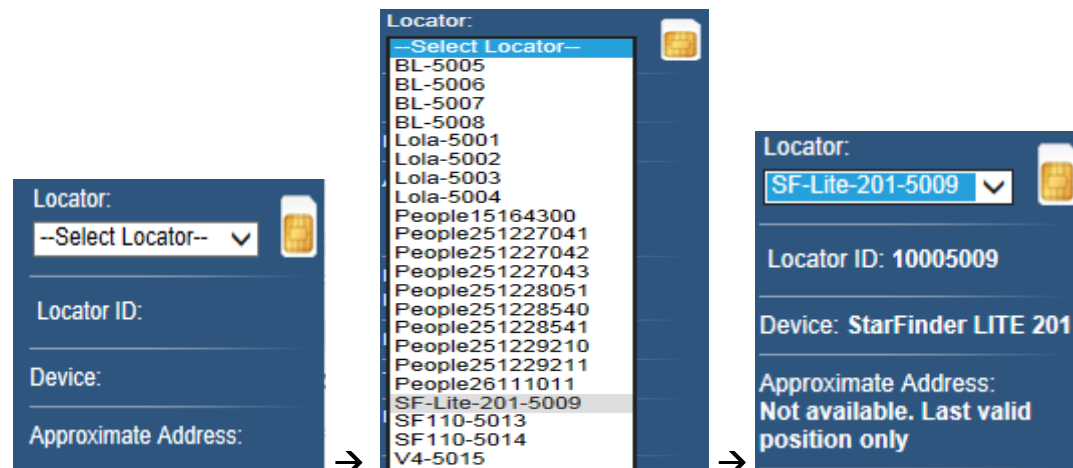Input your authorized User ID and Password here, then, click "Login" to enter into main operation interface

Fig. 9.1.b Main operation interface

9.2 Locate your device's position

9.2.1 Select the device

On the top-light corner, in "Select Locator" window, user can use mouse to select ⌄ button to have a pull-down list. From this list, user should select the device he wants to locate. For example, here it is SF-Lite-2-1-5009, which is called **Locator Name** or **Device Name.**

9.2 check the connection of GSM/GPRS

On top-right corner, there are 3 sets of indicator bar. They shows the status of
• The receiving condition of GPS signal
• The connection status of GSM/GPRS communication channel
• The capacitance of back-up battery
After user's device has connected to LocationNow platform through GSM/GPRS and uploads its position related report, user should see the color of GSM bar becoming from grey to green, shown as Fig. 9.2.a. Depending on the report time interval setting, if it is too long to wait, user can try sending "Locate Device" command directly. Refer to section 9.3.
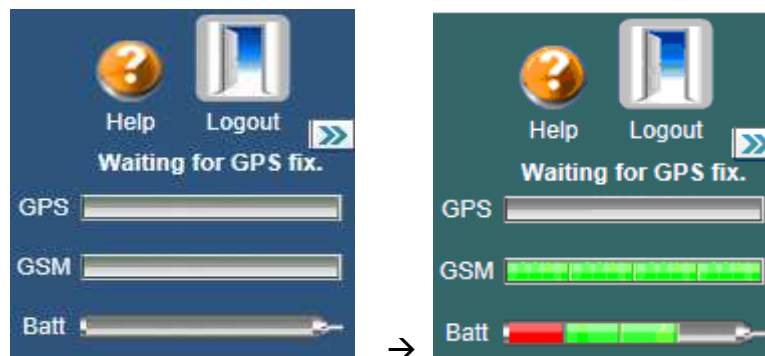

Fig. 9.2.a

If user keeps seeing the GSM bar is shown as Fig. 9.2. b as always,

Fig. 9.2. b

User needs double check

(1) The configuration on his device, especially, the following items

- Device ID and Password
- The selection of band for GSM/GPRS
- If his SIM card being with protection of Pin No. or not
- If the GPRS function has been enabled
- All those APN setting have been set up correctly
- Domain Name, Static IP address and Port No. for connecting to LocationNow platform

Note:
Refer to SF-Lite User Manual V1.3, section 3.4.2, "**Basic Configuration**"

(2) Check with the SIM card provider, if his SIM card has been activated. Sometimes, the activating process needs several hours or even longer.

Note:
Some user tries to use SIM card inside of his cell phone on SF-Lite. In some cases, this SIM card may be bound to his cell phone by GPRS data service provider. It will not allow other M2M devices, such as SF-Lite, to use this SIM card to send and receive data through GPRS communication channel.
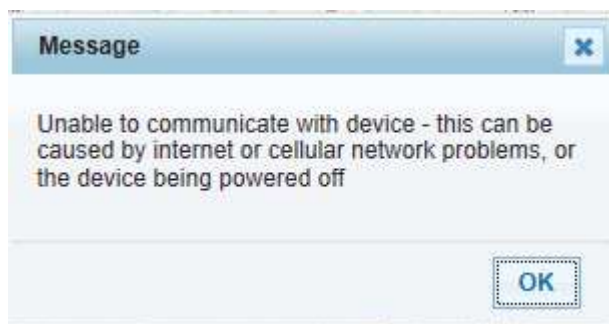
9.3 Locate the position of your device

a. On top line, select the icon and click it, LocationNow platform will send a command to request the current position of the selected device.

b. On the bottom side, user will see a pop-up bar to show the communication status for sending this command. If this sending process is successful, you will see "Completed" shown on this bar.

 →

c. If user sees a pop-up message window as below, user can close this window, wait a while, retry action a and b above

d. After sending this command successful, user should check the area of indicator bars again. If user sees the status as below, it means device keeps moving and its GPS receiver is able to its position data. User can find those detail position data, the correspondent address on Google Map (if this position data is supported by Google Map) and its time stamp in left side. Also, user is able to find the icon standing for this device in center of the Map area.

![Laipac Tech logo] **Laipac Technology Inc.**

By using navigator bar, shown below, user can do zoon-in/out on the Map to have a close look at the position of this device.

e. If it shows the status as below, it means that device's GPS receiver is not able to provide its position data at present. It is provided that user may test his device under in-door condition, he should change the GPS antenna's position to make it as close as possible to the window in order to provide a better GPS signal receiving condition.

f. If user sees the status shown in Fig.9.3.f-1, it means that device could be in one of these 2 conditions below

(1) Device is in still, or
(2) Device is not able to locate its current position, the position data, shown in Fig. 9.3-2 is the last valid position data that device can provide so far.

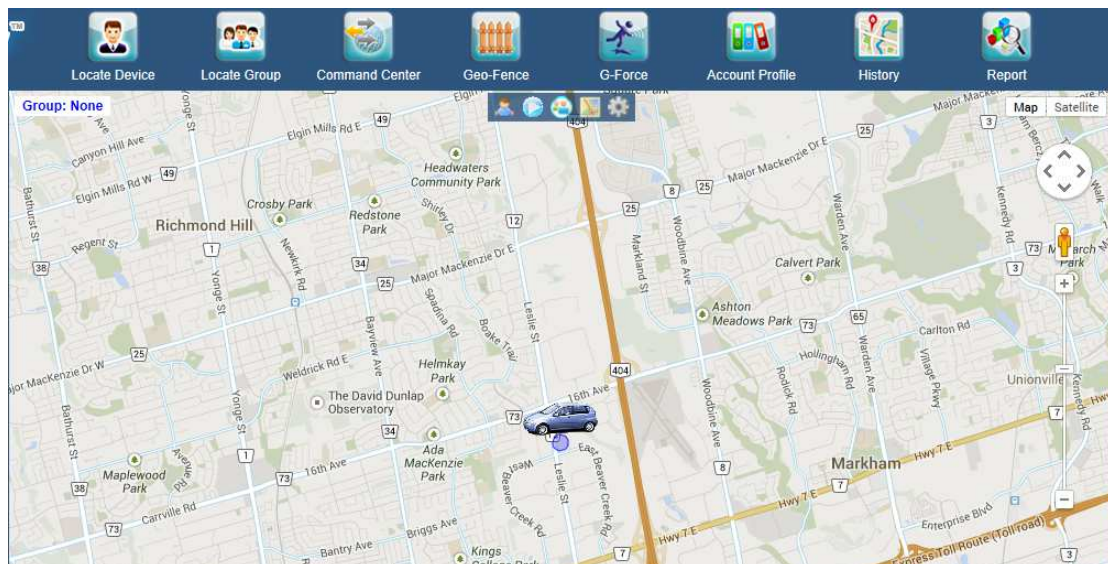Also, User is able to see this last valid position on the Google Map, see Fig. 9.3.f-3

Fig. 9.3.f-1   **Fig. 9.3.f-2**

Fig. 9.3.f-3   Last valid postion